



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Office of Pesticide Programs
 Registration Division (7505P)
 1200 Pennsylvania Ave., N.W.
 Washington, D.C. 20460

EPA Reg. Number:

91234-5

Date of Issuance:

9/2/15

NOTICE OF PESTICIDE:

Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

S105.1 BIFENTHRIN FC

Name and Address of Registrant (include ZIP Code):

Brooke Hedrick
 SynTelus LLC
 1264 Village Market Place #273
 Morrisville, NC 27560

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Kable Bo Davis, Product Manager 3
 Invertebrate and Vertebrate Branch 1
 Registration Division (7505P)

Date:

9/2/15

2. You are required to comply with the data requirements described in the DCIs identified below:

- a. Bifenthrin: GDCI-128825-902
GDCI -128825-1114
GDCI -128825-1158
GDCI -128825-1159

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCIs listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: http://www.epa.gov/oppsrrd1/contacts_prd.htm

3. Make the following label changes before you release the product for shipment:

- Revise the EPA Registration Number to read, "EPA Reg. No. 91234-5."

4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 05/22/2015

If you have any questions, please contact Maggie Rudick by phone at 703-347-0257, or via email at rudick.maggie@epa.gov.

Enclosure

RESTRICTED USE PESTICIDE
 Toxic to fish and aquatic organisms.
 For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

S105.1 Bifenthrin FC

GROUP 3 INSECTICIDE

For Mixing directly with liquid fertilizer to control listed soil insect pests

Active Ingredient:	By Wt.
Bifenthrin*:	17.15%
Other Ingredients:**	82.85%
TOTAL	100.00%

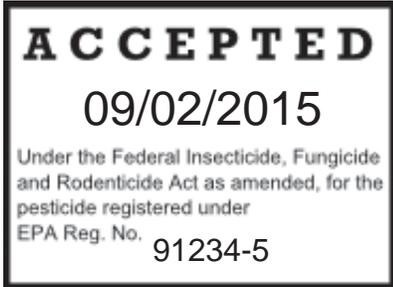
*Cis isomers 97% minimum, trans isomers 3% maximum. **Contains petroleum distillates
 This product contains 1.5 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN
WARNING / AVISO

This label must be in the possession of the user at the time of application.
 Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)
 See other panels for additional precautionary information.

EPA Reg. No. 91234-xx

EPA Est.



Net Contents: _____ Gallons
Formulated for:
SynTelus, LLC
1204 Village Market Place, #273
Morrisville, NC 27560

FIRST AID	
If Swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If In Eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If On Skin	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
<p>HOTLINE NUMBER - Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-844-685-9173. FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call 1-800-424-9300.</p>	
<p>NOTE TO PHYSICIAN - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and should be avoided.</p>	

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

Warning - May be fatal if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

Personal Protective Equipment:

Applicators and other handlers (other than mixers and loaders) must wear: Long-sleeved shirt and long pants, Waterproof gloves, Shoes plus socks and Protective eyewear (goggles, face shield, or safety glasses)

Mixers and Loaders must wear: Long-sleeved shirt and long pants, Waterproof gloves, Shoes plus socks, Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton, Shoes plus Socks and Protective Eyewear (goggles, face shield, or safety glasses)

Resistance Management

Some pests are known to develop resistance to insecticides that have been used repeatedly. While the development of insect resistance is well understood, it is not easily predicted. Therefore insecticides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If insect resistance should develop in the area, this product used alone may not continue to provide sufficient levels of pest control. If the reduced levels of control cannot be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high pest pressure, a resistant strain may have developed.

To reduce the potential for pesticide resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when pests are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

Application and Mixing Instructions

S105.1 BIFENTHRIN FC is an insecticide/miticide that contains 1.5 pounds of bifenthrin per gallon. S105.1 BIFENTHRIN FC can be mixed directly with liquid fertilizer or with water. The rate of application is variable according to pest pressure, timing of treatments and field scouting. Use lower rates under light to moderate pest infestations, and higher rates under heavier pest pressure. In arid climates, applications rates are generally higher. Fill the tank one-half full with liquid fertilizer or water and begin spray tank agitation. Add the proper amount of S105.1 BIFENTHRIN FC and then add the rest of the fertilizer or water. Maintain agitation until the mixture has been applied.

SHAKE WELL BEFORE USING

Agitate the S105.1 BIFENTHRIN FC spray solutions in nurse tanks prior to moving the solution to spray system. Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) of coastal marshes or streams that drain into coastal marshes.

S105.1 BIFENTHRIN FC can be applied in-furrow with the seed, as a T-band (band over the open furrow), as a broadcast application, as a band over the row or as a transplant-water drench during setting. Refer to the table s below for pest control or suppression instructions.

S105.1 BIFENTHRIN FC can be mixed with commonly used liquid starter or pop-up fertilizers. Follow liquid fertilizer recommendations regarding seed safety and use guidelines. Conduct a preliminary jar test using the appropriate ratio of fertilizer and S105.1 BIFENTHRIN FC. Do not allow a tank mixture to set overnight, but if this occurs agitate tank mixture prior to application.

Crop Rotation Restrictions

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

Tank Mixtures

S105.1 BIFENTHRIN FC may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. To insure successful applications, product compatibility tests should be conducted.

Maximum Allowable S105.1 BIFENTHRIN FC Use Per Acre Per Season

Refer to the individual crop sections for maximum allowable S105.1 BIFENTHRIN FC usage per acre per season. The maximum allowable use must include all registered use patterns including at-plant, soil applied and/or foliar applications for the 12 month period. The 12 month period is to begin upon the initial application to the acre.

BUFFER ZONES

Vegetative Buffer Zones

Construct and maintain a minimum 10 foot wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing bifenthrin onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21pp. <http://www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf>.

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast) – Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

Buffer Zone for ULV Aerial Application - Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

Buffer Zone for Non-ULV Aerial Application – Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

Spray Drift Requirements

Wind Direction and Speed

Only apply this product if the wind direction favors on target deposition. Do not apply when the wind velocity exceeds 15 mph.

Temperature Inversion

Do not make aerial or ground applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Droplet Size

Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Additional Requirements for Ground Applications

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

BRASSICAS

Head and Stem Brassica Vegetables including: Broccoli, Chinese, Broccoli (gailon, white flowering broccoli), Brussels Sprouts, Cauliflower, Cavalo broccoli, Kohlrabi, Cabbage, Chinese Cabbage (napa), and Chinese Mustard Cabbage (gai choy)

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5-7 inch band (T-band) over the open seed furrow, or in-furrow with the seed. Cutworm and armyworm treatments may be applied as broadcast treatments to the soil surface.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
Grubs			
Seedcorn maggot			
Cabbage maggot			
Root maggots			
Root aphids			
Army cutworm			
Cutworm spp.			
Armyworm spp.			

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products

BUSHBERRIES (FOLIAR)

Blueberry, highbush and lowbush, Currant, Elderberry, Gooseberry, Huckleberry

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below.

PEST	USE RATES	
	Fluid oz/acre	Pound ai/acre

Blueberry maggot, Fruitworms, Lecanium scale (crawlers) Plum curculio Obliquebanded leaf roller Red banded leafroller Variegated leafroller Spanworm Leafhoppers Aphids	3.4 to 8.5	0.04 to 0.1
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	6.8 to 8.5	0.08 to 0.1

Restrictions:

Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons finished spray per acre with ground equipment. Thorough coverage is essential to achieve control.

Do not apply more than 0.5 pound active ingredient per acre per season.

Do not make applications less than 7 days apart.

Do not apply within 1 day of harvest.

CILANTRO, CORIANDER

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band) in-furrow with the seed, or broadcast to the soil surface.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear	Pound ai/acre
Wireworm Flea beetle larvae Cutworm spp. Armyworm spp.	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

CITRUS (BARE SOIL SURFACE UNDER DRIP LINE) When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply S105.1 BIFENTHRIN FC by ground equipment to bare soil beneath citrus trees. S105.1 BIFENTHRIN FC must be uniformly applied from the trunk to the drip line of tree. Apply in a minimum of 40 gallons of dilute spray per acre.

Greater spray volume should insure greater uniformity of coverage. A pre and post application irrigation may aid in the uniformity of coverage as well.

S105.1 BIFENTHRIN FC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with S105.1 BIFENTHRIN FC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.

Timing of S105.1 BIFENTHRIN FC applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected

by environmental factors, such as soil moisture. Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue-Green and Blue-Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer and fall. Since emergence varies seasonally and by location, timing of S105.1 BIFENTHRIN FC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2 to 3 weeks following adult emergence. It is critical to have the S105.1 BIFENTHRIN FC soil barrier in place prior to drop of the neonates.

S105.1 BIFENTHRIN FC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of S105.1 BIFENTHRIN FC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.

Apply to individual citrus resets, when not in solid planted rows, using hand gun or shielded sprayer.

Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall.

If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 42.5 fluid ounces formulated product should be used to obtain the longest residual management of Diaprepes root weevil. If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 21.25 fluid ounces formulated product can be applied early season and 21.25 fluid ounces formulated product can be applied later in the season.

PEST	USE RATES	
	Fluid oz/acre	Pound ai/acre
Asian cockroach (<i>Blattella asahinae</i>)	8.5 to 21.25	0.1 to 0.25
Diaprepes Root Weevil (<i>Diaprepes abbreviatus</i>) Southern Blue Green Citrus Root Weevil (<i>Pachnaeus litus</i>) Blue Green Citrus Root Weevil (<i>Pachnaeus opalus</i>) Brown Leaf Notcher (<i>Epicaerus mexicanus</i>) Little Leaf Notcher (<i>Artipus floridanus</i>)	21.25 to 42.5	0.25 to 0.50

Restrictions:

Do not apply through irrigation systems.

Do not allow any application of S105.1 BIFENTHRIN FC to contact fruit or foliage.

Do not apply more than a total of 42.5 fluid ounces of formulated product (0.5 pound active ingredient) per acre per year.

Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.

Do not apply by air.

CORN (AT PLANT)

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed, Sweet Corn, Sweet Corn Grown for Seed

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band (T band) over an open furrow, or in-furrow with the seed. Position the spray nozzle behind the planter shoe in front of the press wheel centered over the row. For Army cutworm, Stalkborer, Cutworm spp., True armyworm or Armyworm spp., apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear	Pound ai/acre

Corn Rootworm larvae (Northern, Southern and Western)	6.8 to 17.0	0.39 to 0.98	0.08 to 0.2
Wireworm Grape colaspis Grubs Seedcorn maggot Root aphids Army cutworm Cutworm spp. True armyworm Armyworm spp. Stalkborer Seed corn beetle Sugarcane beetle	3.4 to 13.6	0.2 to 0.78	0.04 to 0.16

Restrictions:

Do not apply more than 0.2 pound active per acre per season as an at-plant application.

For field corn- Do not apply more than 0.3 pound active ingredient per acre per season including ppi, at-plant, pre-emergence, and foliar applications of other bifenthrin products.

For sweet corn- Do not apply more than 0.2 pound active ingredient per acre total per season including ppi, at-plant, pre-emergence, and foliar applications of other bifenthrin products.

CORN (PRE & PPI)

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed, Sweet Corn, Sweet Corn Grown for Seed

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. For PPI treatments, the 4 to 5.3 fluid oz/A rate must be used. S105.1 BIFENTHRIN FC can be tank mixed and applied with PPI herbicides. Incorporation of Capture should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. For PRE treatments, the 3.4 fluid oz/A rate may be applied and can be tank mixed and applied with PRE herbicides.

PEST	USE RATES	
	Fluid oz/acre	Pound ai/acre
Black Cutworm Grape colaspis White Grub Wireworm Seedcorn Maggot Armyworm spp. Seed corn beetle	4 to 5.3 Pre-Plant Incorporated (PPI)	0.047 to 0.062 Pre-Plant Incorporated (PPI)
Black Cutworm Armyworm spp. Stalkborer Seed corn beetle	3.4 Pre-Emergence (PRE)	0.04 Pre-Emergence (PRE)

Restrictions:

For field corn- Do not apply more than 0.3 pound active ingredient per acre total per season including ppi, at-plant, pre-emergence, and foliar applications of other bifenthrin products.

For sweet corn - Do not apply more than 0.2 pound active ingredient per acre total per season including ppi, at-plant, pre-emergence, and foliar applications of other bifenthrin products.

CUCURBITS

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible *Lagenaria* spp. (includes hyotan, cucuzza), *Luffa* spp. (includes hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo*) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin (*Cucurbita* spp.), Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (includes butternut squash, calabaza, hubbard squash (*C. mixta*; *C. pepo*) includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus* spp.).

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. To control rootworm larvae, apply as a 5 to 7 inch band over an open furrow (T-band), or in-furrow with the seed.

To control wireworm, grubs, and fleabeetle larvae, apply as a 5 to 7 inch band over an open furrow (T-band), or in-furrow with the seed or transplant.

To control army cutworm, cutworm spp, true armyworm and armyworm spp, apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), in-furrow with the seed, broadcast to the soil surface or banded over the row.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Cucumber beetle larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm Grubs Flea beetle larvae Army cutworm Cutworm spp. True armyworm Armyworm spp.	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.3 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

DRIED BEANS AND PEAS

Dried cultivars of: Bean (*Lupinus*); Bean (*Phaseolus*), Field bean, Kidney bean, Lima bean (dry), Navy bean, Pinto bean, Tepary bean; Bean (*Vigna*), Adzuki bean, Blackeyed pea, Catjang, Cowpea, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea, Urd bean; Broad bean (dry), Chickpea, Guar, Lablab bean, Lentil; Pea (*Pisum*), Field pea, Pigeon pea

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed. Apply broadcast to the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Corn rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1

Grape colaspis Wireworm Grubs Root maggot Army cutworm Cutworm spp. True armyworm Armyworm spp.	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
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Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 lb. active ingredient (17.0 ounces formulated) to peas or 0.3 lb. active ingredient (25.5 ounces formulated) to beans per acre per season including at-plant plus foliar applications of other bifenthrin products.

EGGPLANT

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed. Apply broadcast to the soil surface for control of Army Cutworm, Cutworm Species, True Armyworm or Armyworm species.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm Grubs Root maggot Army cutworm Cutworm spp. True armyworm Armyworm spp.	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

HEAD LETTUCE

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed. Apply broadcast to the soil surface for control of Army cutworm, Cutworm spp., True armyworm, armyworm spp. or bulb mites.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1

Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
Grubs			
Root maggot			
Lettuce root aphid			
Army cutworm			
Cutworm spp.			
True armyworm			
Armyworm spp.			
Bulb mites			

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

LEAFY BRASSICAS, TURNIP GREENS

Broccoli Raab, Bok Choy, Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens, Turnip Greens
 When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed. Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm or armyworm spp.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
Grubs			
Root maggot			
Lettuce root aphid			
Army cutworm			
Cutworm spp.			
True armyworm			
Armyworm spp.			

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.4 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

LEAFY PETIOLE VEGETABLES (FOLIAR)

Celery, Cardoon, Chinese celery, Celtuce, Florence fennel, Rhubarb, Swiss chard

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

	USE RATES
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PEST	Fluid oz/acre	Pound ai/acre
Cutworms Corn Earworm Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Aphids Whitefly Armyworms Loopers Stink Bugs Crickets Ground Beetles Thrips Wireworm (adults) Diamondback Moth	3.4 to 8.5	0.04 to 0.1
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	6.8 to 8.5	0.08 to 0.1

Restrictions:

Do not apply more than 0.5 lb. active ingredient per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 7 days of harvest.

OKRA

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Wireworm Armyworm Cutworm Flea beetle larvae	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.
Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products (such as Brigade 2EC).

PEPPERS (BELL and NON-BELL)

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow

(T-band), or in-furrow with the seed. Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, Armyworm spp. or Stalk borer.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
Grubs			
Root maggot			
Flea beetle larvae			
Pepper maggot			
Root aphid			
Army cutworm			
Cutworm spp.			
True armyworm			
Armyworm spp.			
Stalk borer			

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.
 Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

SOD FARMS (FOLIAR)

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a broadcast treatment.

Use higher volumes up to 10 gallons of carrier per 1000 square feet to get uniform coverage when treating dense grass foliage.

Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests including mole crickets.

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, S105.1 BIFENTHRIN FC may be applied at up to 0.4 fluid oz. per 1000 square feet to control each of the pests listed in this table. The higher application rates should be used when maximum residual control is desired or heavy pest populations occur.

PEST	USE RATES	
	Fluid oz/acre	Fluid oz/ 1000 sq. ft.
Armyworms ¹	2.8 to 4.35	0.066 to 0.1
Cutworms ¹		
Sod Webworm ¹		
Annual Bluegrass Weevil (Hyperodes) (Adult) ²	4.35 to 8.7	0.1 to 0.2
Banks Grass Mite ⁶		
Billbugs (Adult) ³		
Black Turfgrass Ataenius (Adult) ⁴		
Crickets		
Earwigs		
Grasshoppers		
Mealybugs		
Mites ⁶		
Chinch Bugs ⁵		
Japanese Beetle (Adult)		
Mole Cricket (Adult) ⁷		
Mole Cricket (Nymph) ⁸		

In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Comments

1 Armyworms, Cutworms and Sod Webworms: To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.4 fluid oz. per 1000 square feet) may be required during periods of high pest pressure.

2 Annual Bluegrass Weevil (*Hyperodes*) adults: Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when *Forsythia* is in full bloom and concludes when flowering dogwood (*Cornus florida*) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

3 Billbug adults: Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

4 Black Turfgrass Ataenius adults: Applications should be made during May and July to control the first and second generation of black turf-grass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). The July application should be timed to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

5 Chinch Bugs: Chinch Bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch Bugs can be one of the most difficult pests to control in grasses and the higher application rates (up to 0.4 fluid oz. per 1000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

6 Mites: To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, five to seven days after the first, may be necessary to achieve acceptable control.

7 Mole Cricket adults: Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

8 Mole Cricket nymphs: Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

SOYBEANS

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow

(T-band), or in-furrow with the seed. Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
Grape colaspis			
Grubs			
Root maggot			
Seedcorn maggot			
Army cutworm			
Cutworm spp.			
True armyworm			
Armyworm spp.			
Seed corn beetle			

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application. Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

SOYBEANS (PPI & PRE)

For PPI treatments, the 4 to 5.3 fluid oz/A rate must be used. S105.1 BIFENTHRIN FC can be tank mixed and applied with PPI herbicides. Incorporation of S105.1 BIFENTHRIN FC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.

For PRE treatments, the 3.4 fluid oz/A rate may be applied and can be tank mixed and applied with PRE herbicides.

PEST	USE RATES	
	Fluid oz/acre	Pound ai/acre
Black Cutworm	4 to 5.3	0.47 to 0.062
White grub	Pre-Plant Incorporated	Pre-Plant Incorporated
Wireworm	(PPI)	(PPI)
Seed corn Maggot		
Armyworm spp.		
Seed corn beetle		
Black Cutworm	3.4 Pre-Emergence	0.04 Pre-Emergence
Armyworm	(PRE)	(PRE)
Stalkborer		
Seed corn beetle		

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as PPI or PRE application. Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

SPINACH

Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed. Apply broadcast to the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
Grubs			
Root maggot			
Seedcorn maggot			
Army cutworm			
Cutworm spp.			
True armyworm			
Armyworm spp.			

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.4 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

SUCCULENT PEAS AND BEANS

Pea (Pisum spp.): Dwarf pea, Edible-pod pea, English pea, Garden pea, Green pea, Snow pea, Sugar snap pea, Pigeon pea; Bean (Phaseolus spp.): Broadbean (succulent), Lima bean (green), Runner bean, Snap bean, Wax bean; Bean, Vigna spp.): Asparagus bean, Blackeyed pea, Chinese longbean, Cowpea, Moth bean, Southern pea, Yardlong bean, Jackbean, Soybean (immature seed), Sword bean

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed. Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08
Grape colaspis			
Grubs			
Root maggot			
Seedcorn maggot			
Army cutworm			
Cutworm spp.			
True armyworm			
Armyworm spp.			

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

TOBACCO (PRE-TRANSPLANT and AT-TRANSPLANT)

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below.

Pre-transplant soil applications:

Use of suitable equipment to incorporate into top 4" of the soil is required to control below ground pests.

At-transplant water treatment application:

Apply 0.0625 to 0.1 pound ai/A in a water treatment application volume of 10 to 200 gal/A.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Cutworm spp. Flea beetle larvae White grubs Wireworm Mole cricket Armyworm spp. Stalkborer	3.4 to 8.5	0.2 to 0.49	0.04 to 0.1

Restrictions:

Do not apply more than 0.2 pound active ingredient per acre per season.

Do not apply later than layby.

May be tank mixed with Command, Spartan and other herbicides approved for tobacco use.

TOBACCO (FOLIAR)

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply 0.04 to 0.10 lb ai/A per foliar application up to, and including, layby in a minimum of 10 gal/A.

Do not make more than 2 foliar applications per season.

PEST	USE RATES	
	Fluid oz/acre	Pound ai/acre
Aphid spp. Armyworm spp. Chinch bugs Cutworm spp. Flea beetle (Adults) Grasshoppers Green bugs Japanese beetles Stink Bugs Thrips White flies Tarnished plant bugs	3.4 to 8.5	0.04 to 0.1
Hornworm Tobacco Budworm	6.8 to 8.5	0.08 to 0.1
Spider mites Lygus spp.	8.5	0.1

Restrictions:

Do not make more than 2 foliar applications per season.

Do not apply more than 0.2 pounds active ingredient per acre per season.

Do not apply later than layby.

May be tank mixed with Command, Spartan and other herbicides approved for tobacco use.

*See resistance management statement under "Directions for Use" section.

TOMATOES

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open

furrow (T-band), or in-furrow with the seed. Apply broadcast to the soil surface for control of Army cutworm, Cutworm spp., True armyworm, Armyworm spp. or Stalkborer.

PEST	USE RATES		
	Fluid oz/acre	Fluid oz/1000 Linear ft.	Pound ai/acre
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.1
Wireworm Grubs Root maggot Flea beetle larvae Army cutworm Cutworm spp. True armyworm Armyworm spp. Stalkborer	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08

Restrictions:

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.32 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

TUBEROUS AND CORM VEGETABLES (AT-PLANT)

Potato, Sweet potato, Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Tanier, Turmer, Yam bean, True yam.

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the pests listed in the table below. S105.1 BIFENTHRIN FC may be applied as a soil incorporated broadcast, directed bed spray or a T-band spray into the planting furrow for the control of wireworms, rootworms, sweet potato flea beetle and white grubs. Apply S105.1 BIFENTHRIN FC at the rate of 0.15 to 0.3 pounds active ingredient (12.75 to 25.5 fluid ounces formulated) per acre in a minimum of 10 gallons per acre of spray.

PEST	USE RATES	
	Fluid oz/acre	Pound ai/acre
Wireworms Grape colapsis White grub Sweet potato flea beetle Rootworms	12.75 to 25.5	0.15 to 0.3

Restrictions:

Do not apply more than 0.3 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

TUBEROUS AND CORM VEGETABLES (LAY-BY)

Potato, Sweet potato, Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Tanier, Turmer, Yam bean, True yam.

When applied as directed, S105.1 BIFENTHRIN FC will provide control of the following pests listed in the table below. S105.1 BIFENTHRIN FC may be applied as one or more soil directed and incorporated treatments at cultivation or lay-by for the control of wireworms, rootworms and white grubs. Apply S105.1 BIFENTHRIN FC to the drill area and incorporate by cultivation equipment set to throw soil towards the drill area. Apply S105.1 BIFENTHRIN FC at a rate of 0.15 to 0.3 pound active ingredient (12.75 to 25.5 fluid ounces formulated) per acre in a minimum of 10 gallons per acre of spray.

PEST	USE RATES	
	Fluid oz/acre	Pound ai/acre
Wireworms Grape colapsis White grub Rootworms	12.75 to 25.5	0.15 to 0.3

Restrictions:

Do not apply more than 0.5 pound active ingredient per acre per season including soil plus foliar applications of other bifenthrin products.

Continued on next page

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage

DO NOT STORE BELOW 40°F.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and Spills): (800) 424-9300.

To confine spill: Dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container. Identify contents.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling

Non-refillable container (in sizes 5 gallons or less) - Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds, pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Non-refillable container (in sizes greater than 5 gallons) - Do not reuse or refill this container. Triple rinse or pressure rinse. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Returnable/Refillable Containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Warranty and Disclaimer Statement

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of SynTelus, LLC ("SynTelus"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

SynTelus warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to SynTelus, and is subject to the inherent risks described above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SYNTELUS DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SYNTELUS, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF SYNTELUS IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF SYNTELUS, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT SYNTELUS'S ELECTION, THE REPLACEMENT OF THE PRODUCT.

[EPA approval date]